

In the Claims:

1. (Original) A composition for removing residues from the microstructure of an object comprising:
 - carbon dioxide;
 - an additive for removing the residues comprising a fluoride having a formula $\text{NR}_1\text{R}_2\text{R}_3\text{R}_4\text{F}$, where R_1 , R_2 , R_3 , and R_4 are each independently a hydrogen or an alkyl group; and
 - a co-solvent for dissolving said additive in said CO_2 at a pressurized fluid condition.
2. (Original) The composition of claim 1 wherein the additive further comprises a basic compound.
3. (Original) The composition of claim 1 wherein R_1 , R_2 , R_3 , and R_4 are hydrogen.
4. (Original) The composition of claim 1 wherein R_1 , R_2 , R_3 , and R_4 are an alkyl group.
5. (Original) A composition for removing residues from the microstructure of an object comprising:
 - carbon dioxide,
 - a compound having a hydroxyl group,
 - a fluoride having a formula $\text{NR}_1\text{R}_2\text{R}_3\text{R}_4\text{F}$, where R_1 , R_2 , R_3 , and R_4 are each independently a hydrogen or an alkyl group.
6. (Original) The composition of claim 5 further comprising a basic compound.
7. (Original) The composition of claim 6 wherein the basic compound is selected from a quaternaryammoniumhydroxide, an alkylamine, an alkanolamine, a hydroxylamine, and mixtures thereof.
8. (Original) The composition of claim 5 further comprising a co-solvent selected from dimethylacetamide, propylene glycol, dimethylsulfoxide, deionized water, acetic acid, and mixtures thereof.

9. (Original) The composition of claim 8 wherein the co-solvent comprises deionized water.
10. (Original) The composition of claim 8 wherein the co-solvent is substantially free of water.
11. (Original) The composition of claim 5 wherein R₁, R₂, R₃, and R₄ are hydrogen.
12. (Original) The composition of claim 5 wherein R₁, R₂, R₃, and R₄ are an alkyl group.
13. (Original) The composition of claim 5 wherein the fluoride is selected from ammonium fluoride, tetramethylammoniumfluoride, tetraethylammoniumfluoride, tetrabutylammoniumfluoride, tetrapropylammoniumfluoride, choline fluoride, and mixtures thereof.
14. (Original) The composition of claim 5 wherein the compound is selected from ethanol, methanol, n-propanol, isopropanol, n-butanol, iso-butanol, diethyleneglycolmonomethylether, diethyleneglycolmonoethylether, hexafluoroisopropanol, and mixtures thereof.
15. (Canceled)
16. (Currently Amended) The composition of claim ~~15~~ 19 wherein the additive is dissolved within the cosolvent.
17. (Canceled)
18. (Currently Amended) The composition of claim ~~17~~ 19 wherein the residues are at least one selected from photoresist, UV-hardened resist, X-ray hardened resist, ashed resists, carbon-fluorine containing polymer, plasma etch residues, organic process contaminants, and inorganic process contaminants.

19. (New) A composition for removing residues from the microstructure of an object comprising:
- carbon dioxide wherein the carbon dioxide is in a pressurized or a supercritical fluid state;
 - an additive comprising a fluoride having a formula $\text{NR}_1\text{R}_2\text{R}_3\text{R}_4\text{F}$, where R_1 , R_2 , R_3 , and R_4 are each independently a hydrogen or an alkyl group, and mixtures thereof and optionally a basic compound; and
 - a cosolvent selected from an alcohol, dimethylacetamide, propylene glycol, dimethylsulfoxide, deionized water, acetic acid, acetone, ethanol, propanol, dimethylformamide, N-methyl-2-pyrrodine, diethylene glycol methyl ether, and mixtures thereof.
20. (New) A composition for removing residues from the microstructure of an object comprising:
- from 0.001 to 8 weight percent of an additive comprising a fluoride having a formula $\text{NR}_1\text{R}_2\text{R}_3\text{R}_4\text{F}$, where R_1 , R_2 , R_3 , and R_4 are each independently a hydrogen or an alkyl group, and mixtures thereof and optionally a basic compound;
 - from 1 to 50 weight percent of a cosolvent selected from an alcohol, dimethylacetamide, propylene glycol, dimethylsulfoxide, deionized water, acetic acid, acetone, ethanol, propanol, dimethylformamide, N-methyl-2-pyrrodine, diethylene glycol methyl ether, and mixtures thereof; and
 - carbon dioxide.
21. (New) The composition of claim 20 wherein the additive further comprises methane.
22. (New) The composition of claim 20 wherein the additive further comprises a surfactant having a CF_x group.